CHEMISTRY CLASS 12 BATCH

SOLUTIONS

DPP-08

- 1. Fishes feel uncomfortable in warm water due to
 - (1) fishes do not like warmness
 - (2) higher amount of impurities
 - (3) low solubility of oxygen at higher temperature
 - (4) greater population of fishes
- 2. The gas for which Henry's law is not applicable in aqueous solution is
 - (1) HCl (2) N₂
 - (3) Xe (4) He
- 3. Unit of Henry's constant KH is same as that of
 - (1) Volume (2) Temperature
 - (3) Energy (4) Pressure
- 4. If partial pressure of Gas A = 0.4 bar, Gas B = 0.2 bar and Gas C = 0.5 bar, then the gas having maximum solubility (neglecting other factors) is
 (1) A
 (2) B
 (3) C
 (4) All are equal soluble
- 5. Which law states that the amount of gas that is soluble in a liquid is directly proportional to the partial pressure of that gas above the liquid when the temperature is kept constant?
 - (1) Raoult's Law (2) Henry's Law
 - (3) Coloumb's Law (4) Dalton's Law
- 6. The value of Henry's constant ($K_{\mbox{\scriptsize H}}$) depends on
 - (1) nature of the gas
 - (2) nature of the solvent
 - (3) temperature and pressure
 - (4) all of these
- 7. The factor which decreases the solubility of gas in liquid is
 - (1) low temperature
 - (2) interaction between molecules of gas & liquid
 - (3) high temperature
 - (4) high pressure
- 8. The gas dissolved in carbonated drinks escapes an opening the bottle due to
 - (1) increase in temperature (2) increase in pressure
 - (3) decrease in pressure over gas
 - (4) Increase in molecular interaction

- A person feels more fatigue at high altitudes due to (1) low pressure of oxygen
 - (2) low temperature
 - (3) nausea
 - (4) contraction of body

10. Henry's law is not applicable for aqueous solution of

(1) O ₂	(2) N ₂
(3) SO₃	(4) He

- 11. Henry's law is not applicable at
 - (1) low pressure
 - (2) high pressure
 - (3) gas does not react with liquid
 - (4) high temperature
- 12. O_2 is bubbled through water at 293K. Assume that O_2 exerts a partial pressure of 0.98 bar, find the solubility of O_2 in g L⁻¹. The value of Henry's law constant KH for O2 is 34.84 k bar.

(1) 0.05	(2) 0.08
(3) 0.07	(4) 0.01

13. Gases with their Henry's constant values are given. The gas having maximum solubility will be Gas A K_H = 21.2 k bar Gas B K_H = 11.2 k bar Gas C K_H = 5.6 k bar Gas D KH = 2.4 k bar

(1) A	(2) B
(3) C	(4) D

14. The gas which is expected to have maximum value of $K_{\rm H}$ will be

(1) BH₃	(2) CO ₂
(3) H ₂ S	(4) He

15. An unopened soda has an aqueous concentration of CO_2 at 25°C equal to 0.05 mole kg⁻¹. The pressure of CO_2 gas in the can is (K_H = 0.34 mole/kg bar)

(1) 0.671 bar	(2) 1.49 bar
(3) 1.20 bar	(4) 1.71 bar